

February 23, 1951.

House File 567

Public Health and Pharmacy. By OLSON, PUTNEY, NELSON of Jasper.

Passed House, Date

Vote: Ayes..... Nays.....

Passed Senate, Date

Vote: Ayes..... Nays.....

Approved.....

A BILL FOR

An Act to promote health and welfare by providing for blood tests to discover Rh blood factor in expectant mothers.

Be It Enacted by the General Assembly of the State of Iowa:

1 Section 1. Each physician attending a pregnant woman
2 in this state during gestation shall, in the case of each
3 woman so attended, take or cause to be taken a sample of
4 blood of such woman within fourteen (14) days of the first
5 examination, and submit such sample for the determination
6 of the Rh blood factor to the state bacteriological
7 laboratory of the state university at Iowa City or such other
8 laboratories co-operating with and approved by the state
9 department of health. Every other person permitted by law
10 to attend upon pregnant women in the state but not permitted
11 by law to take blood tests, shall cause sample of the blood
12 of such pregnant woman to be taken by a duly licensed
13 physician and submitted for the determination of the Rh
14 blood factor to the state bacteriological laboratory of the
15 state university at Iowa City or such other laboratories
16 co-operating with and approved by the state department of

17 health. Such laboratory tests as are required by this
18 section shall be made on request without charge by the state
19 department of health. The result of all laboratory tests
20 shall be reported on standard forms prescribed by the
21 commissioner of public health.

EXPLANATION OF H. F. 567

This Act will prevent the death of many babies who might otherwise be saved by requiring the determination of the Rh blood factor in expectant mothers.

In the past some babies have died shortly after birth from severe forms of anemia or jaundice. Until recently, physicians have had no adequate explanation of the cause.

Medical science has now discovered, however, that these deaths may sometimes be attributed to a blood condition in the mother known as Rh negative. In non-scientific terms, the story of this Rh factor is as follows:

Some red blood cells are surrounded by ultramicroscopic protein molecules which are called the Rh factor. Persons who have these substances are called Rh positive, while those who do not are called Rh negative.

When blood from an Rh positive individual is transferred to the veins of an Rh negative person, a reaction in the blood of the latter produces substances called anti-bodies. If, at a later date, Rh positive blood is again injected into the veins of the Rh negative person, these antibodies act to destroy the blood cells with serious consequences. Thus, care must be exercised to avoid giving an Rh negative individual transfusion of Rh positive blood.

When, moreover, an Rh positive father produces a child by an Rh negative mother the unborn baby may have Rh positive blood. This may escape into the mother's blood stream, produce the antibodies mentioned above and be returned to the baby, causing a severe destruction or coagulation of blood cells. In some cases the child may be still-born. In others, the baby born with the defective blood may be restored to full health by transfusions of blood which does not contain the harmful antibodies.

Since the treatment is quick transfusions for the new-born child, physicians need to know in advance if the mother is Rh negative. While there is nothing to prevent physicians from making a test of the mother's blood before birth of her child, for simple uniform and efficient way to cope with this problem is to have the test for Rh factor made from the prenatal blood sample now required by state law in the initial stages of pregnancy. Since this test is already required, it would be feasible and inexpensive to test the same blood sample for Rh factor.